GEOGRAPHICAL PROXIMITY IN BUSINESS ECOSYSTEMS

A Case Study Comparing Three Firms

Aarne Nykänen

Bachelor's Thesis

Instructor: Dr. Patrick Simek

Date of submission: 8 April 2020

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ABSTRACT OF
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Objectives

The main objectives of this study were to study the role of geographical proximity in business ecosystems. The study focused on the properties of the characteristics and how it affects the firms used in case study thus aiming to answer question: *Should firms strive for geographical proximity in their respective business ecosystem?*

Summary

Nowadays firms are usually parts or players in a business ecosystem, regardless whether they want it or not. This study conducts a case study comparing three firms from different business ecosystems and determines the effect and significance of geographical proximity in their respective business ecosystems. In the end the known factors and characteristics were put together. It was found that despite many firms and ecosystems rely heavily, even completely, on online platforms, geographical proximity is never a disadvantageous position for a firm, though it might have a lower priority compared to other activities.

Conclusions

Geographical proximity gives advantage for all firms studied in the case study, despite their differences in the conducted and needed operations. However, there are successful ecosystems that are not bound together by geographical proximity or industry. The main advantages geographical proximity gives are: access to local culture, knowledge spillovers and the flow of tacit knowledge, as well as shorter distance for manufacturing industry. Striving for geographic proximity in respective business ecosystem is advised on the basis of the before mentioned results.

Key words: Business ecosystem, geographical proximity, case study, SWOT, BMC, cluster, tacit knowledge, online platform

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Introduction

Nowadays it is advised that companies recognise their respective business ecosystem (BE) they operate in and there are numerous papers concerning appropriate strategy in every case (Iansiti&Levien, 2004; Moore, 1993; Battistella et al., 2012). Some companies rely heavily on digital platforms and for example the BE around online retailing company Amazon is a prime example on how important and powerful it may become compared to its competitors.

Since the digital technologies have become a new option to be carefully considered when deciding the right direction in a BE, it should be analysed if is better than the other extreme end of the spectrum: geographical proximity.

The main question in this study therefore is:

Should firms strive for geographical proximity in their respective business ecosystem?

This section will introduce written literature on the field concerning BE's and possible strategies considering geographical proximity from a variety of angles. The discussed are: explaining the concept of business ecosystem, is there evidence speaking for geographical proximity and its advantage compared to relying on technological means of interaction, is there evidence supporting other means than geographical proximity in business ecosystems (other noteworthy things that should be taken into account or just good/important to know), and finally conclusion based on the literature.

Literature Review

What is a business ecosystem?

1993 James F. Moore introduced a new concept in his article in Harvard Business Review. He suggested that companies should not be considered as individual firms, or even as parts of their industry, but rather parts of their *business ecosystem*. In his article in the Antitrust Bulletin in 2006 he continues and states that governments and other institutions should recognise the concept officially as a new dimension in order to create appropriate legislation and rules so that the BE could not be exploited by actors inside or outside them. He defined a business ecosystem as "an economic community supported by a foundation of interacting organizations and individuals—the organisms of the business world." (Moore, 1996: 26).

With organisms of the business world he meant, as mentioned, organisations and individuals: other firms and institutions, including NGO's and the government, and other individuals that happen to be part of the community revolving around the connecting factor. This factor can be anything that would gain enough attraction to have many actors and their firms depending on it.

Examples from created BE's are ecosystems around for example Walmart, Apple and Amazon. By definition they have an economic community they are required to interact with to keep their own business successful. On the other hand, the community depends on the named firms to create business around the products, like software for Apple products. The ecosystem sustains all firms and stakeholders and it is for every firms common interest to maintain it, thus there should be a balance of cooperation and competition, also known as coopetition to keep the strongest players for the good of the ecosystem (Moore, 1993).

Origins

The concept of business ecosystem was originally introduced in an article in Harvard Business Review (Moore, 1993). It originates from the analogy between biological ecosystems and business world. According to Moore, the need for this new concept came from the need for new aspect in strategy that included coevolution of firms. Using definition from Bateson (Bateson, 1979): coevolution is a phenomenon in which changes in one species provides an opportunity for change in another species, this impacts all firms in their respective field. Furthermore, again referring to biological ecosystems, Moore pointed out that even there that dominant species may lose their position and sometimes changes in the environment is the reason for rapid collapse in the ecosystem, rather than the species. Therefore Moore suggested that:

"…a company be viewed not as a member of a single industry but as part of a *business ecosystem* that crosses a variety of industries. In a business ecosystem, companies coevolve capabilities around a new innovation: they work cooperatively and competitively to support new products, satisfy customer needs, and eventually incorporate the next round of innovations."(Moore, 1993).

This concept has later on been further expanded (Moore, 1996) and researched. It has been suggested to be taken into account by firms (Iansiti&Levien, 2004) to their strategy and government for their judicial system alike (Moore, 2006).

As a phenomenon, business ecosystems started within automobile industry. The industry as the centre, other businesses started to depend on automobiles and their use, e.g. roads, gasoline service, components and steel, etc.(Moore, 1993). The main stage later became the computer industry. Initially between IBM and Hewlett-Packard, in later decades the competition was joined with firms like Apple and even later Microsoft and Intel. It is notable that Intel and IBM were competing in the same ecosystem, whereas for example Apple focused on another ecosystem, rivalling IBM's ecosystem.

Public good

Business ecosystems may be considered as public goods (Moore, 1993). He mentions BE's role in innovation. "The ideal business ecosystem is an economic community of highly flexible producers and consumers, who specialize in order to innovate."(Moore, 1993:29). This does not only keep the competition within and outside the BE's going, but brings out new innovations from multiple sources and sectors as well. It also helps the firms to network with other firms and thus exchange information and possible solution with each other. This way *coopetition* can be practised leading to healthy activity (more discussed in later chapters). Another strength come from the numbers. Treating a BE as a single system, the networks and possibly shared resources make it possible for firms to collaborate in a more structured manner towards a reasonable solution, thus avoiding creation of multiple different paths instead of a single one saving time and effort compared to others.

All in all, business ecosystem has proven to be an effective organisational structure in coordinating masses in different sectors towards one goal in terms of a product, solution or alike.

Life cycle

Originally it was stated that BE's have four different stages in their life cycle's (Moore, 1993). This has later been challenged by arguing that the original phases were too based on more stable PC industry rather than as a competent model for all business activity in

ecosystems (Rong&Shi, 2015). This, however will not be discussed due to lack of material to base the discussion on. The original stages are:

- **Birth**; in stage 1 ecosystem is still forming while the firms and niche players try out new ideas and innovations. The main goal is to develop the system and product and see what alternatives are attractive to customers and consumers. (Moore, 1993). It has also been noted that bigger firms with more connections and resources may initially only observe what the other firms do. This way they are able to replicate successful implementations across wider market. Another alternative is to do like Apple did and consciously nurtured and developed a community around the products.
- **Expansion**; in stage 2 the ecosystems start to expand themselves and possibly occupy new markets. This may result in conflict between competing ecosystems. To summarise: “In general, two conditions are necessary for Stage 2 expansion: (1) a business concept that a large number of customers will value; and (2) the potential to scale up the concept to reach this broad market.” (Moore, 1993). The ecosystems have to be careful though, to keep the balance between interest from customers and ability to meet their demand. Around 1980’s IBM had this problem. Stage 2 also rewards faster expansion that covers ground from competing ecosystems, as long as the companies are able maintain the control over the segment.
- **Leadership**; in stage 3 the bargaining power for an ecosystem or a firm in an ecosystem is being the only competitive source or skill or resource X. Sometimes this position is held for a long time, but it requires constant innovation and development from the leaders. Being the central ecological contributor like Apple and Microsoft is a strong position to hold in an ecosystem that provides an opportunity to spread influence and connections and thus increase sales for a shorter period of time.
- **Self-renewal**; “Stage 4 of a business ecosystem occurs when mature business communities are threatened by rising new ecosystems and innovations.” (Moore, 1993). This is the case when technology has developed in a way that the ecosystem has not been able to do either by lack of innovation or by choosing to focus on another path. Either way, the status quo created by older ecosystems is

under threat and the competition rises again. The results, affected by actions of the firms and preferences of the customers, decide what direction markets take

Different roles in a business ecosystem

There has been defined 4 different roles in a business ecosystem. A keystone-player, a dominator, a niche player and a hub-landlord (Iansiti & Levien, 2004). This later explained again (Karhiniemi, 2009) and referred to as the roles in the literature.

A keystone player is a considered to be critical for the survival of the whole ecosystem. Their activity tends to create the basis for the rest of the activity in the ecosystem. According to Iansiti and Levien in Harvard Business Review article 2004 they "aim to improve the overall health of their ecosystems by providing a stable and predictable set of common assets (…) that other organizations use to build their own offerings". As an example they mention the Windows operating system by Microsoft that has built an ecosystem around itself.

A dominator is an actor that seeks control over the ecosystems networks in order to gain more value and create value for themselves. Generally they are not good for the development of the ecosystem in the long run due to their aggressive behaviour and hard control over other actors, thus diminishing possible diversity.

A niche player is an actor in the ecosystem that has specialised in a specific task or segment in all business in the ecosystem in order to differentiate from other firms. Most of the firms in an ecosystem belong to this group, and therefore they and their diverse networking and activity is crucial in a healthy developing ecosystem.

A Hub landlord is a minor actor in an ecosystem that drains the value from the nodes they are a part of. Their activity relies on them gaining value on behalf of other actors and firms and creating it very little themselves.

Common characteristics

Other common characteristics associated with business ecosystems are constant development, coopetition (both inside and outside the ecosystem), decentralised decision-

making and connectivity. They are not absolute, but can be found in majority of business ecosystems.

Constant development comes from the analogy to biological ecosystem (Moore, 1993; Iansiti & Levien, 2004). The status quo in a business ecosystem in not constant and it is affected by factors and actors from outside and inside the BE. Like in a biological ecosystem, only the fittest and adapting species survive. Thus sometimes players from the BE are not able survive in the competition and go bankrupt. This leaves room for new firms and actors and in its turn shapes the ecosystem to a certain direction. In one study (Lehtonen et al, 2019), where the participants were asked to draw the local gaming business ecosystem from their perspective, one answer depicted an old firm that no longer existed and affecting the new firms and protecting them. This means that this firm has arguably still an impact, despite its years of absence.

Coopetition means the combination of competition and co-operation between actors (Battistella et al, 2012). It is considered to be one of the driving forces behind successful BE's (Moore, 1996). In practice it means the balance inside the ecosystem between the actors: in order to discard the unfit actors and firms from the ecosystem the BE needs competition between the firms. On the other hand the firms might not be able to develop their activity and networks without help from the other actors. Thus coopetition is needed for an ecosystem to flourish and preserve.

Decentralised decision-making can be considered to be one of the fundamental characteristics in a functioning BE (Kelly, 1994). In decentralised decision-making there is no individual firm or a set of firms that would make the decision to which direction the BE should be going. Instead, the ecosystem reacts to customers and fluctuations inside it to determine the favourable direction by new nice-players and possible new keystones. Minor things in a firms activity is outsourced to other parties and for instance niche-players. "In short, networks make outsourcing feasible, profitable, and competitive. The jobs one company passes off to another can be passed back several times until they rest upon the shoulders of a small, tightly knit group, who will complete the job with care and efficiency" (Kelly, 1994, p.166).The constant development determines the errors and successes through trial and error and thus is the way in which the ecosystem is heading as an entirety. When firms in the ecosystem have wide networks in their use, the available options are available for use without a stiff central command. This definition is disputable, since a large keystone-player might have an enormous power inside the respective BE. Walmart, for

example is in a position to choose, which products it wants to sell in its store and other aren't often in a position to negotiate seriously. The firms should no matter their position or role in the business ecosystem be conscious of their whole ecological environment system (Moore, 1996).

Connectivity is also found in all BE's. It may be considered by digital connections and interaction between actors or personal connections between people from other firms and institutions. It has also been argued that the quality of the connections is more important than the quantity (Karhiniemi, 2009). In a BE, the different levels are connected with each other with the actors in them, as well as with actors and other BE's. The connections between the actors that they depend on when doing business in their own sector is what makes the ecosystem. The figure below (Jansen et al, 2009) illustrates the different levels of connections in a BE in the software industry.

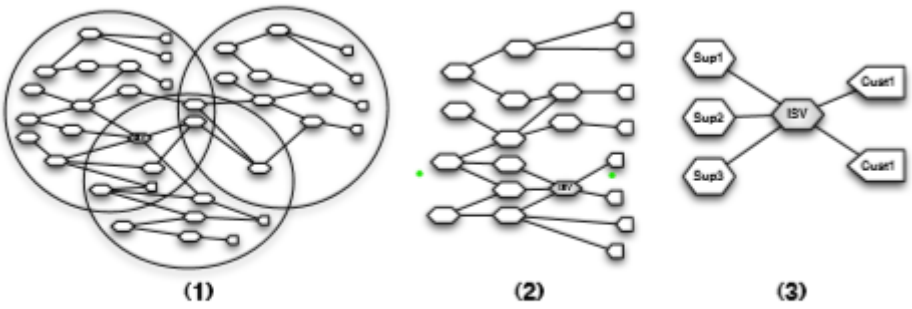

Fig. 1. Software Ecosystem Scope Levels

Figure 1, Jansen et al. 2009

Methodology for thesis

The research process was started by defining the main research questions, which are discussed and opened in the introduction of this thesis. The questions and the area of research were further clarified and made more suitable for the purpose of research during the process and preparation for the work. This preparation included reading and analysing articles and pieces of work on the field, including academic articles and journal entries, but also from more business oriented journals due to their importance in the field. These have been found by using search engines and databases provided by private firms and universities.

This research is more qualitative and explorative in nature, rather than quantitative. This is because of the relatively recent emergence of the field, since even though the idea has been around, the term was first introduced in the previously mentioned article (Moore, 1993). This is also the reason, why the study occasionally relies heavily on few pieces of work. The research of this study focuses on gathering of secondary data. The data was gathered from articles and journal entries in a previously discussed manner.

The topic was not familiar beforehand and all research and details have been constructed on the basis of research. No conclusions were made before the research was conducted, though hypothesis and research questions were made to help in the process.
The reader should also be aware that this research was done within the limits and requirements of a bachelor's thesis and thus should be treated one in terms of accuracy and extensiveness.

Case study

In order to demonstrate the theoretical side of physical proximity in real life situation, the thesis provides the reader with 3 case studies on different firms. These firms come from following fields: online retailing and car manufacturing. The fields were chosen to contrast two industries that are not competing with each other, but can build ecosystems around even one successful firm. Examples will be provided. They also have different methods in achieving customer satisfaction as will be shown.
The firms were chosen due to different geographic locations. This is important due to different cultures and manners and thus values, priorities and methods the firms use in terms of production or manufacturing and in terms of customer service.

In terms of analysis, the gathered data was put together by using SWOT-analysis method, as well as business canvas model. This was done to firstly to map out properties of geographical proximity with the firms and how they are visible in a firm's activity. The business canvas model on the other hand is used to properly show the properties of the inspected firms in an easily comprehendible way.

Business Canvas model

Business Canvas model was originally created by Alexander Osterwalder (2004) in his Ph.D. work. In his proposition, he took inspiration from different axis and classifications to compare businesses: cost leaders vs differentiators (Porter, 2001), degrees of innovation

and integration (Timmers, 1998) and economic control and value integration (Tapscott et al. 2000). By combining these more general classifications he created a model with more specific characteristic to describe in a business in order to map its properties:

- **Key Partners**: Who are the key partner and what are their motivations?
- **Key Activities**: What are the key activities the values proposition requires?
- **Value proposition**: What core value do you deliver to the customer?
- **Customer Relationship**: What kind of relationship are you expected to establish with the customers?
- **Customer Segment**: Who is the most important customer?
- **Key Resource**: What are the key resources the value proposition requires?
- **Distribution channels**: What are the channels the customers want to be reached through?
- **Cost Structure**: What are the biggest costs in the business activity?
- **Revenue Stream**: What is the value customers are willing to pay for?

These characteristics were later used when the Business Canvas Model was introduced (Osterwalder et al., 2010). This introduced a visual format for the above mentioned, but slightly modified characteristics and uses blocks instead of axis to bring out the intended information.

The Business Model Canvas

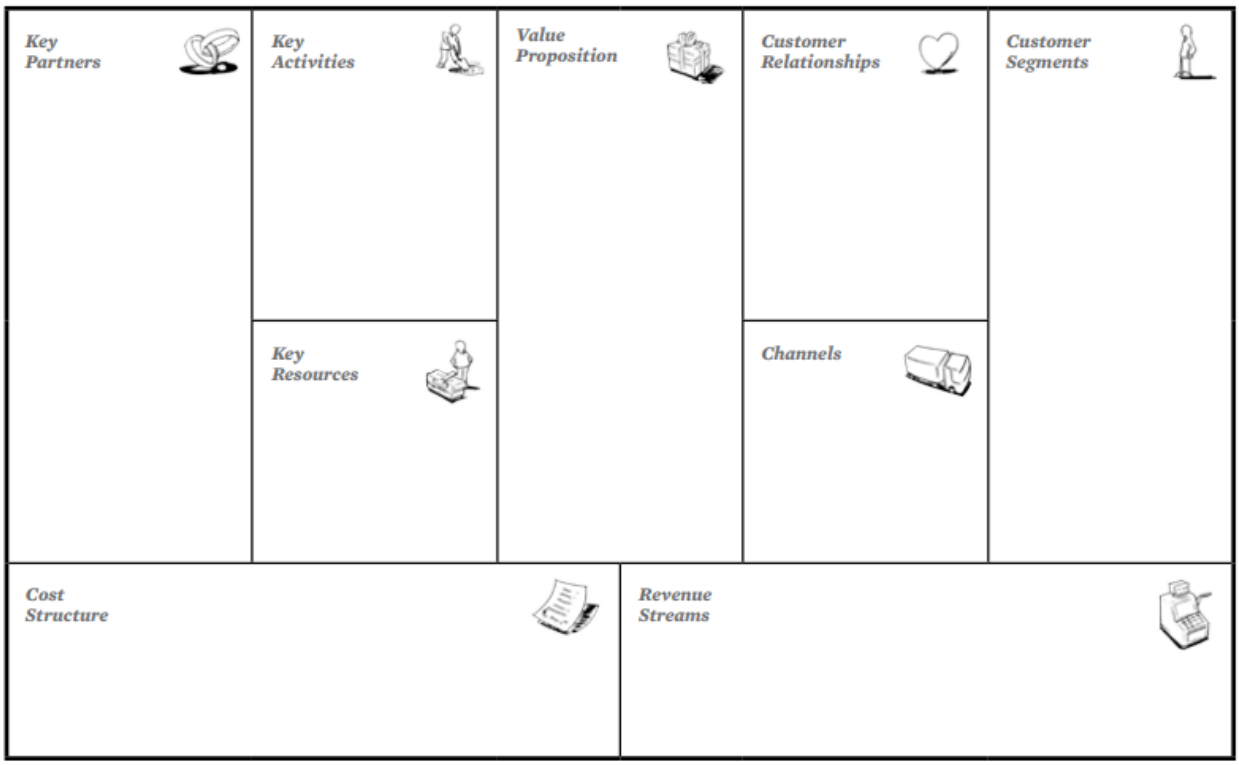

Table 1 (Osterwalder et al., 2010, p.44)

The Business Canvas Model was chosen as a research method due to its simplicity in use and observation. This way the properties of firms used case study can be inspected and thoroughly understood, which is crucial to understand how the physical proximity affects them and shows in their decisions and strategy. Also, by using a table with easily graspable contents it is easier to see the differences in these characteristics instead of only writing them out. Visuals are altogether a simpler and effective in this case than using purely narrative methods (Langley, 1999). The analysis is conducted on the basis of literature and own observation.

SWOT- analysis

SWOT analysis is the second method that will be used in this thesis. Generally SWOT-analysis has been used by firms and institutions as a tool to find the characteristics and their connections in a firm, which then can be used to build a strategy for the firm.
The strengths of this kind of analysis is in its form: it is good to collect and display information that has been perceived to be pertinent. As mentioned also in previous chapter, it is then more simple and easy to observe and read, rather than narrative methods of display.

The origins of SWOT-analysis have been unclear, though Alfred Humphrey has been given credit for it (Friesner, 2011). He later explains that it has not been academically accredited to Humphrey and the honest origins is still a mystery. Another article explains further, first agreeing on the unknown origins of the model, but it has most likely been developed in a project Humphrey was working with, alongside with other researchers (Gürel, 2017).

SWOT-analysis will be used in this thesis due to its utility in giving a simple layout of the gathered information that would otherwise be complicated to read, thus making the presentation more efficient.

The letter combination SWOT comes from words strengths, weaknesses, opportunities and threats. The information is collected to a matrix that then displays them. This can be developed further by using TOWS-analysis, but this will be discussed more in the next chapter.

The matrix can be divided into two categories: internal and external. Internal consists of strengths and weaknesses. They are factors that come from inside the firm or institution and therefore be more easily affected by own actions. What are the strengths and weaknesses of the firm in terms of its skills, organisation, location, resources, etc. An example for each could be taken from an automobile firm: the strength could be the technical knowledge and skills in energy efficiency, but weakness being the electronic software's required for the systems to work properly.

Opportunities and threats belong to external factors. These are generally something imposed on the company by the environment and cannot be directly affected, though being proactive as a firm is an arguably helpful solution. They include trends and phenomenon, weather, global economy, and with recent development, pandemics. Examples on opportunities for opportunities could be an imposed cap on pollution. This requires better technology that could open a niche for a company that has proficiency on it. A threat would be a trade war, limitations or longer process in getting through customs when exporting.

Below example table on different factors (Table 2).

Internal Factors	
Strengths	**Weaknesses**
Market dominance Core skills Economies of scale Low-cost position Leadership and management Manufacturing ability Age of equipment Innovative processes and products Architecture network Reputation Differentiated products Product or service quality	Market share weakness Few core strengths and low key skills Old equipment, higher costs than the competition Weak finances and poor cash flow skills Management skills and leadership lacking Poor record of innovation Weak organization with poor architecture Low quality and poor reputation Products not differentiated Dependent on few products
External Factors	
Opportunities	**Threats**
New markets and segments New products Diversification opportunities Market growth Competitor weakness Demographic and social change Change in political, economic environment New takeover or partnership opportunities Economic upturn International growth	New market entrants Increased competition Increased pressure from customers and suppliers Substitutes Low market growth Economic cycle downturn Technological threat Change in political or economic environment Demographic change New international barriers to trade

Table 2 (Pershing, J., n.d. Handbook Of Human Performance Technology. p.1136.)

The map helps to recognise these characteristics. With strengths it shows what is already good and does not require as much attention, or what requires extra attention because it gives the firm and advantage in competition with other firms. Weaknesses are good to know, since being aware of ones weaknesses is the first step in fixing them. Opportunities and taking advantage of them is one key factor and skill in a successful business. By being aware of possible changes in the future that could provide an opportunity in terms of market opening or change in business environment helps to prepare to them so they do not pass by unnoticed and the firm is more ready to take the full benefits from them. Preparing for threats is another equally important skill. Being aware of possible risks is first step in preparing to counter them, or at least minimize the damage.

The analysis is conducted on the basis of literature.

Analysis

Business Canvas Model

First, we'll perform a depiction of all three compared firms on previously discussed business model canvas. This is done to have all firms compared on the same template and to reveal the possible differences through posed questions.

The analysis will not be done using the template, but rather sub headings. It should also be noted that the model based analysis is built on information available and gathered.

Toyota

Toyota is a Japanese car manufacturing company and represents the traditional industry in this analysis.

Key partners

The key partners of Toyota are the suppliers of the parts and services needed (Toyota Corporation, 2020). Other key partners are definitely the transport services.
The suppliers of the needed services and resources (parts, materials, software, etc.) are not internal for the company. Instead they are supplied by external actors in the ecosystem.

Key activities

Car manufacturing, selling operations, supporting business (financial services and housing services) (Toyota, 2017, p.50), marketing, research and development.
Furthermore, ensuring the successful execution of business operations conducted by other firms in the ecosystem. That is important to make sure that other parts of the supply chain work as well as they should. Also, the other activities solidify the constant incoming revenue. Research and development are an investment for the future, marketing is to keep the demand and flow of information constant and supporting businesses are an addition to support and arguably market the core activities.

Value proposition

The core value or aim of Toyota is to:

"*provide value to social infrastructure by achieving zero life cycle CO2 emissions from its vehicles (…), eliminating causalities from traffic accidents and improving transportation efficiency through the combined transport of people and things.*
We seek to expand the value we provide into the area of personal living by working to help all people move about freely and enjoyably and by providing services optimized to individual lifestyles." (Toyota, 2017, p. 6)

At the moment the firm is keeping up with the competition by providing, as stated, "services optimized to individual lifestyles" in forms of ongoing car manufacturing and product development.
The main satisfied customer need has been modern means for transportation on individual or group level.
The supporting businesses have aimed to satisfy needs that, if not satisfied, would hurt the company. The financial services, such as car insurance, directly support the car owners, which in turn benefits Toyota. Housing business on the other hand is located in Japan near the company's factories, thus helping the employees to find affordable housing near the work. This, again, directly helps the company and develops a picture as a caring employer.

Finally it should be noted that all this supporting business activity is building and reinforcing the business ecosystems around Toyota's key activity: car manufacturing, which creates more value for it and the whole ecosystems at the same time.

Customer Relationship

Presumably, the target customers expect Toyota to manufacture modern and high quality cars for everyday use, and provide spare parts and services for reparations. Presumably the customers want that the firm listens to them on how the cars should be made (what features and characteristics they like or prefer compared to others) and how well the services are being organised.

The way Toyota can integrate the customers and feedback into their flow of information. By ensuring that the customers, both firms and individuals, have easy access to report their wishes and feedback is an advantage in competition. Similarly, if Toyota receives information from car stores they supply with their own productions, it should help both sides. Especially, since there is no dealer production in automobile industry.

Customer Segment

Due to the nature of the manufactured product, the target market for Toyota is adults with moderate income the least. If supporting business is counted in, the level of income is not as important (housing is a priority before buying a car, generally). Otherwise, people who need means of individual transport that suits them and their use.

Most important customers would be other firms that buy several automobiles from Toyota and the insurance services. This would lead to big deal with also long-lasting benefits for both sides.

Key Resource

The key resources include the materials and the equipment needed for the production of automobiles. However, the most important resources for a firm like Toyota, is the technological and strategical know how and skills. That, being connected to human resources, is the resource that ensures that Toyota keeps up with the competition with other manufacturers with research and development (Nkomo, 2012).

Distribution Channel

In automotive industry the manufacturers very rarely sell cars to customers on their own. They sell them to licensed dealership stores that sell them further to individual customers. This way it is not up to the manufacturers to focus on the sales on individual level, but on a business-to-business level. The brand (Toyota) must take care of the marketing, though. Otherwise the individual or firm-customers do not find the car attractive and the dealerships don't get sales. This would lead to dealerships not wanting to buy from the brand anymore.

So far the automobile sales have concentrated to dealerships. It would seem to be difficult to change that status quo, since it has been part of the ecosystem for so long and there is no other alternative in sight. Thus changing the roles and the system would most likely only confuse the customers.

Cost Structure

The single biggest source of costs in Toyota is the cost of products sold. Seconds come "selling, general and administrative" costs and finally cost of financing operations.
This seems logical, because the main core of the business model is traditional car

manufacturing and sales. The product itself is moderate with its costs and everything revolves around it. According to Toyota's 2017 annual report, however, the main focus or research and development is on efficiency of the car production. This also leads to the second largest source of costs: selling, general and administrative. In a firm as big as Toyota the human resources are very important.

From single resources the most expensive and important would most likely be the human resources. As mentioned, that is the resource that not only takes care of the required machinery, but also keeps developing new technologies, products, ideas and models. It is the most long-lasting resource that keeps Toyota in the competition without falling behind in terms of innovation.

Revenue Stream

The value the customers are paying for are, according to the annual report 2017, as mentioned, "*services optimized to individual lifestyles*." (Toyota, 2017, p. 6). That what the firm sells, and that has been what the customers have bought.
The main revenue is without a doubt the car manufacturing. The financial and housing services are not big in comparison.

Amazon

Amazon is an online retailing firm, with its headquarters located in USA. The main product Amazon offers to consumers is the online platform used to access the store and thereafter the products sold.

Key Partners

Amazons suppliers come from many directions. Anyone can sell their products in the Amazon website. The software for the platform is created by the firm, which gives it the unofficial status of a keystone player in its ecosystem.
Other key partners are the manufacturers and third-party sellers on the platform who keep the site and supply high.

The motivation for both sides is revenue. By opening the online platform for everyone to do business has been a strategic decision they have made to gain as many users as possible (Majed et al., 2018). This creates a stronger brand (especially when the firm was not as well known), cumulates service revenue from the users and keeps the supply for the

website users wide. This all also attracts individual customers back to use the services again.
For the suppliers the revenue comes from access to global set of potential customers that would otherwise be impossible to access and to market their products to. By joining the ecosystem as a third party supplier of a product, they have more chances of succeeding, even if they have to pay Amazon for using the platform.

Key Activities

The most important activities for amazon is to keep constantly developing the platform to suit the needs of the suppliers as well as the customers, giving them what they do not know they want (Majed et al. 2018). This way they keep their position in the global competition of online trade platforms. This is crucial despite Amazon's strong position due to global competitors like Alibaba, which will be analysed later.
Another equally important and connected key activity is gathering data on the customers. There are several benefits from this activity: the data can be used to create a more personal shopping experience for repeating customers. It can also be used in target marketing of products, no matter whether they are supplied by Amazon, competitors or third party suppliers.

Value Proposition

The core value for Amazon has been "anything online" (Majed et al., 2018). This philosophy has driven Amazon to develop to its current form with the services it supplies and the products it can connect with the potential customers. That has also been the goal since the firm started to expand its range of products first from books to music and so on. At the moment this ideal is still the driving force behind the company's activity.

Customer Relationship

As mentioned, Amazon can use the data it has gathered in order to enhance the user experience. This would make it possible for the platform to adapt to individual preferences and habits that a customer might have and make it more attractive and easy to use. This is a form of surrogacy to make it seem like the platform knew the continuously appearing customer. The challenge for Amazon is to identify their customers and hold on to them.

The advantage an online platform has compared to a physical store or market, is the way it can gather the data. If it is included to the platforms function and the user agrees to this sort of profiling to happen, the system does it for every user.

Customer Segment

Due to its wide range of offered products, Amazon's customers include anyone with access to internet and skills to use a computer. Generally this excludes you children and babies, as well as elderly people with not skill or interest in replacing traditional shopping with online surrogate.

The most important customers for Amazon are, without focusing on demographics, the loyal customers who keep coming back. This does not depend on the attitudes or age or other characteristics as long as the customer is a loyal user of the platform. The loyal customers are the key to long-term success, due to predictability and mouth-to-mouth marketing.
Another argument would be the suppliers, who provide majority of the products sold on the platform. After all, they provide the goods sold and Amazon merely provides the platform to conduct the trade. However, the suppliers of the products are also customers and consumers of the platform and therefore the service and product of the firm Amazon. They rely their business activity on the platform, which happens to be the main service Amazon provides. They pay for it and if they do it continuously, they belong to the loyal customers due to their constant business relation with Amazon.

Key Resource

Key resource for Amazon is the already created online platform and the technological know-how on how to utilize it and all its functions and potential.
The platform, its technology, connections and brand are the main key resources that arguably form the basis for Amazon's business. Together they establish the online shopping environment that the customers and the third party suppliers are attracted to do business either by selling or by buying. First, the platform enables smooth and informed decision making for all sides, which is essential to satisfy the customer needs and to provide a pleasant experience. Second, the technology used enables for the website to adapt to the different customers and personalise the experience for anyone who uses the services often enough. Furthermore, the data collected is valuable itself to use, to develop the used programmes and to sell, if the firm decides to do so. Third, despite it is heavily

related to other factors, the connections with other firms were initially the factor that widened Amazon's range of products and gave the lead experience on how to manage the firm in more or less its current form. It also allows it to utilize services and suppliers from numerous places and directions. Finally, related to connections, is the brand. Building the brand was one of the top priorities for Amazon in the early stages (Majed et al, 2018). The brand has worked as a promise for trustworthy actions and services as well as marketing between customers. Adding to connections, a strong brand name also attracts new suppliers and thus increases traffic on the website.

Distribution Channel

The key product Amazon supplies is not a physical concept, hence the main distribution channel is online. As discussed the position Amazon has as a keystone player in its ecosystem relies on this.

On the other hand the delivery of the products bought online requires traditional service. In the more rural area the service relies on postal services as well as transportation services from third parties. On the more urban areas, where the deliveries have become very common the firm has started to use drones for delivery, apparently with promising results (Shavarani et al, 2017). This is executed either by Amazon or by a third party.

Cost Structure

The most costs come from cost of sales, fulfilment and technology and content. The cost of sales "primarily consists of the purchase price of consumer products, digital media content costs where we record revenue gross, including video and music, packaging supplies, sortation and delivery centers and related equipment costs, and inbound and outbound shipping costs, including where we are the transportation service provider." (Amazon, 2018).

Fulfilment means in practise staffing in numerous locations and tasks. Technology and content is related to the firm's research and development on products alongside with the platform.

Revenue Stream

The revenue comes from the sold products. Due to the wide range of supply, the customer is often able to decide the value themselves on the product. They however also pay for the

platform, since that is the main vessel to conduct the process in a pleasant and efficient manner.

The Annual report did not discuss the main streams of revenue, but the sale of products has the most monetary value in revenue. Geographically Amazon is strong in North America as the area alone has larger revenue than other international areas combined.

Alibaba

Similar to Amazon, Alibaba Group is a Chinese e-commerce company. It is a keystone player in its own business ecosystem. The firm consists of Alibaba (the B2B website), Taobao (B2C or C2C website) and Tmall (online marketplace). Furthermore, “Alibaba is the world’s largest B2B e-commerce portal with over 80 million registered users worldwide. Its business focuses on providing a trading platform that connects international buyers to suppliers in China for virtually any product." (Tan et al, 2015). What makes the comparison between Alibaba and Amazon especially interesting, is the different geographical locations of their core business activity. This brings cultural and social differences in the environments, which has led to different strategic decisions. The comparison will be discussed later, this part focuses on Alibaba alone.

Key Partners

The key partners for Alibaba are the suppliers of the products sold online, the users of the platform. The suppliers make it possible for Alibaba to sell globally a wide selection of different products and essentially keep the business going on.
The users on the other hand keep the platform traffic high and possibly attract new users and customers there too. Furthermore the firm needs logistics service providers as well as software service providers.

The main motivations for the suppliers are most likely business and revenue, which remains arguably constant due to constant demand from individual buyers’ side.
As for the users of the platform, they want to be part of a worldwide business ecosystem, which has also given them access to as wide range of potential customers as Alibaba has users.

Key Activities

The key activities are the constant development of the platform and creating helpful additions to it in order to make it more user friendly and pleasant to use. In other words, enhance the customer experience. This includes the development and creation of Wangwang-chat service system, which will be discussed later.
Also, having significantly low borders to enter the platform ecosystem has been a key action to increase the traffic in the system thus creating more users who know the platform. Furthermore, the more users the platform has, the more data can be gathered to analyse and used in different ways to sell or to develop the operations.

Value Proposition

The core value the customers get is anything online, with good customer service. Also the third party users receive invaluable help in establishing their own business online. “You didn’t need to know how to create your own website and publish your own information… Alibaba would collect this information and publish it on the Internet on our behalf. So you might not know anything about the Internet, but yet you are online and have an e-commerce website. It was a big deal at the time"(Tan et al, 2015). This statement was made a gold supplier who used Alibaba.
The satisfied customer needs revolve around the wide supply answering to demand, the service is supplied on an accessible platform online that supposedly is easy to use, and which offers customer service and support to those who need or want it. In Alibaba’s activity, this combination has been in deep focus.

Customer Relationship

In Chinese culture, the norms and values are different than when compared to westerns ones. Online environment does not change these circumstances: “More generally, management should consider that the online environment is not detached from local cultural norms and behaviours" (Rong et al, 2018). Therefore, adaptations should be made.
In Chinese culture social interaction and trust are in a different level than in the western world. Due to the Chinese culture and habits, a phenomenon called quanxi is a norm. Quanxi means that in order for something to happen or to work, one has to know the right people. It this concept it is essential to establish personal connections with everyone. In terms of business, it means that one has first know the person they are dealing with. No connection, no business.

The customer relationship has been the part, in which Alibaba has differentiated itself. Wangwang is the solution for how this behaviour can be surrogated in online environment by using a chat service for the buyer and the customer to converse and perhaps haggle with each other and for the customer to ask questions. This way real life store experience can be simulated thus lowering the mental barrier to do shopping online.

Customer Segment

The classes Alibaba is creating value for are essentially all platform users regardless of their demographic characteristics or whether they are another business or an individual customer as long as they have online access. Their business tends to focus geographically to China, even if their websites deal also with international customers and firms.
The most important customers are the ones that continuously keep using the platform(s) they offer and develop.

Key Resource

The key resources for Alibaba are the platforms they sustain for business activity. They are the factor and resource that make Alibaba into a keystone player in its respective business ecosystem. On the other hand, fluent connections to several firms that are willing to do business on Alibaba's platform. The connections are a resource on its own, because it strengthens the position of Alibaba as an entity and attracts more customers and users. Furthermore, it adds value to the platform due to network effect (Katz & Shapiro, 1994).

Distribution Channel

Due to its nature as an e-commerce firm the accessibility of a customer depends on their access to internet. This being the factor that distinguishes Alibaba from traditional commerce, it most likely separates also the channel the customers and users from the users of the traditional forms of commerce. Therefore presumably the potential customers want to be reached through electronic means in marketing and perhaps mouth-to-mouth in terms of reputation. In terms of the bought products, they require traditional transportation services like any other physical products. If the bough product is electronic by its nature, it can be received online from the platform or the seller, if the seller is a third party user.

Cost Structure

The major source of costs in Alibaba is the cost of revenue. In other words, the cost of manufacturing and delivering the product to customer who bought it. It comprises 60% of their revenue (Alibaba, 2019). Other major sources of costs are sales and marketing expense and product development expenses. The minor ones were general and administrative expenses as well as amortization of intangible assets.

There can be concluded that constantly running the business of products is the most expensive part of Alibaba's operations, despite being the part that enables effective and trustworthy use of the platform.

Revenue Stream

The value the customers are willing to pay for is the wide range of products buyable online, the smooth multisided online platform that has been developed to suit also specific social and cultural needs.
The main source of revenue for Alibaba is the "core commerce", referencing to e-commerce operated on its platforms and the use of the platforms. The minor ones are: cloud computing, digital media and entertainment, and innovation initiatives and others.

SWOT-analysis

SWOT-analysis will be performed on the inspected phenomenon: geographical proximity. This way the characteristics may be presented in an analytical way to a SWOT-matrix and are thus easier to utilize when combining the recently seen properties of the firms with it. This allows to see connections and what effect does geographical proximity have in the functioning and operating in these firms. The analysis is based on previously discussed literature.

The analysis will first be presented with according subheadings and summarised in a SWOT-matrix.

Strengths

Strengths that geographical proximity offers are numerous. First, the access to flow of tacit information is important (Lehtonen et al. 2019). This includes non-verbal communications between parties, local norms and values and international, cultural awareness. This will help the firm in question to approach either a new community - whether this may be a customer, and ecosystem or an entire market – and build a common ground on how things

are dealt with and what needs to be taken into consideration, possibly as a new element. Furthermore, geographic proximity has been tied to innovation. It has been argued that since geographic proximity enhances the flow of tacit knowledge, it also works as a facilitator for innovation in an ecosystem (Desrochers, 2001).

By being located closed to each other, geographical proximity does not only help in understanding the connections one has, but also establishing them. When entering and especially when trying to create an entirely new business ecosystem, connections are very important: “With this [creating new ecosystems] strategy, the networking requires a lot of multiple, loose connections, it is complex, and new value networks emerge.” (Tukiainen et al, 2019). This is also an advantage when the business ecosystem is a tight community at a local territorial level. This enhances collaboration and possible coopetition between firms, and collaboration has been proven to be the main driver for partnerships between firms (Tukiainen et al, 2019).

Third; since discussed, being geographically a part of an ecosystem makes a firm more connected with its surrounding firms. This applies also in terms of business activity. This way, if the ecosystem is doing well, it will help also the firm that is well connected part of it. Finally, physical products remain to be an integral part of consumers’ and customers’ lives. Geographical proximity helps in the delivery of the sold products and ordered materials. This is one reason, why Toyota was very keen to establish its activity in Detroit or other location with suppliers nearby (Mair et al. 1988).

Weaknesses

Physical proximity does not only provide advantages, but disadvantages too. One that should be taken into consideration by any firm that is planning to expand is that it limits interaction with potential partners and customers if no other means are being used. This puts a firm into disadvantage when compared to other firms with thus more customers.

Second, the advantage of this kind of proximity from tacit knowledge and cultural understanding may be surrogated by various means. This helps the e-commerce firms to attract more customers compared to traditional ones due it being often more effortless. This should be emphasized, since it appears that the modern business world is becoming more and more geographically dispersed (Winger, 2005)

Third, the spreading of business activity is a two-sided coin and applies both ways. If the ecosystem and its presence can influence a firm positively, it can also do it negatively.

Thus, if the ecosystem is in trouble or is losing customers for example to a competing ecosystem the positive influence becomes negative influence and slows down the growth.

Finally, the barriers to entry appear to be easier to lower down in an ecosystem that is not limited by geographical boundaries. Lowering the barriers of entering the market and joining the ecosystem was one of the most influential strategical decision made by Amazon and Alibaba, but would be difficult to copy in an ecosystem that relies on geographical location and physical presence.

Opportunities

First, building clusters and agglomerations has a chance to increase territorial business activity. This on the other hand could attract new firms that strengthen the ecosystem and offers again something new that other firms in the agglomeration could benefit from. A prime example of this phenomenon is Amazon. The CEO of Amazon chose that the location of Amazon's headquarters would be Seattle due to its close location to "software talent and the Oregon warehouse of the leading book distributor, Ingram Book Distributors" (Leschly et al, 2003, p. 3).

This connects us to possible knowledge spill-overs. This is the case that happened in Helsinki game industry. After Nokia was forced to let its personnel go when the firm was not able to keep up in the competition, they were highly skilled potential employees with experience in the technological field. This was later seen in the firms in the gaming ecosystem through new recruitments as well as some former Nokia employees starting their own firms and joining the territorial ecosystem (Lehtonen et at, 2019).

Other opportunities in geographical proximity lie in accidental connections. As discussed before, personal connections are the force being many successful partnerships. These connections are not always planned or coordinated, but are rather formed by accidental meetings. By creating a hub, where several firms are located and operate close to each other could increase this kind of connections and possibly connect people together who were not aware of each other. This has been tried in Otaniemi, Finland in form of connecting startup-sauna and a startup hub Maria 01 in Helsinki. Furthermore, events like Slush are designed to bring people from different backgrounds to the same space in order to learn from each other and build new connections.

Threats

Geographical proximity is not without threats, however. One major threat is the global rise of e-commerce. More and more people are ordering their products online and the firms benefitting are developing their platforms more and more customer friendly. There is a reason, why Amazon and Alibaba have been so successful.

There is also a risk in collapse of local business ecosystem. A business that is centred on a specific geographical location and the proximity of other members of the ecosystem, would tend to be more vulnerable on the geographical changes. The companies that are a part of a more dispersed ecosystems are less sensitive for this kind of changes. It should be noted though, that more dispersed ecosystem still tend to be sensitive on changes that happen in the market for other members of the ecosystem thus changing the condition to reveal the vulnerability.

Finally, considering the recent global events, business that relies on geographical proximity of the customers or other members of the ecosystem is in the centre of an ordered physical lockdown. This, even though an unlikely event, in case happening will pose a serious threat to the continuation of the business, whereas dispersed firms or the ones not relying on interaction that requires geographical proximity are better built to not be as strongly affected by the lockdown.

Strengths	Weaknesses	Opportunities	Threats
- flow of tacit knowledge - closer connections to local ecosystems - Understanding and learning culture, value and norms - Arguably one of the best ways to establish new connections - delivery or physical products becomes easier	- Limits interaction if other means are not used - Can be surrogated with various means - Easily spreads the problems of other ecosystem members to you - More difficult to open up and lower barriers to entry	- Building clusters and agglomerations may increase territorial business activity - May lead to accidental new connections - Possible knowledge spill-overs (e.g. case Nokia) - Organised events that attract people - Cultural values and norms	- Collapse of a local/territorial ecosystem - Rise of e-commerce - Physical lockdown

Table 3

Findings

In this section we will present the findings on the basis of the conducted analysis. This will then be referred to the literature review to bring the two parts on the same page. The presentation of findings will begin with comparing the firms by the results from the business model canvas. Then we will see how the characteristics from geographical proximity on the SWOT-analysis affect them.

BMC-analysis

The main differences between the activity of Toyota (traditional industry) and Amazon and Alibaba (e-commerce online platform), is the nature of the main product. This is the core of the differentiating factor. Toyota's main product, being physical in nature in comparison with

Amazon and Alibaba, requires more concentration and planning in terms of visibility, marketing, manufacturing and delivery. Furthermore, all products must be manufactured, whereas the main product for Alibaba and Amazon is arguably the online platform.

This also leads to different kind of management when conducting the operations. Toyota relies on the manufacturing of the product and thus everything is built to make it more efficient, including the housing services and the practised JIT-method. This means that they have to plan out the logistics for not only delivering the product out, but for the parts that are used in the manufacturing and for the machines used in manufacturing. This was mentioned in the BMC-analysis as well.

This also affects the customer relationship with the firms. Toyota's products quality is easily measurable in comparison with other cars. It should also be noted that a car is highly used and often valued product that has high investment from the buyer. Alibaba and Amazon do not require investment of that level despite perhaps encouraging it. The loyalty of the customers, however, is a valuable asset. Another difference between Toyota and the e-commerce firms that should be pointed out here is that in terms of marketing and strengthening the brand, online environment is more suitable for attracting new users for the platform compared to attracting new drivers for the cars. A strategic move which was made by both Amazon and Alibaba was to let everyone to use the platform no matter whether they were originally a competitor or another member in the business ecosystem. This created traffic on their websites and led to more people seeing it and becoming interested in it. This would not have been possible for Toyota without risking losses.

In terms of geographical location of the firms, Toyota has the biggest reason to give it a careful thought. Still, Amazon has made it likewise a priority. By choosing the location of its headquarters based on the local business environment is a bold decision, but in the light of the research should pay off. Alibaba hasn't shown indicators to have given a high priority towards the geographical location in terms of territorial approach. Nonetheless, it has shown the greatest feat from cultural adaptation from the three compared firms. Despite Toyota taking advantage on the local know-how in the car industry in North America and Amazon engaging customers in order to convince other customers on the quality of their purchase, Alibaba created a new communication channel to simulate and surrogate the cultural norms in a relatively new business environment without other firms to have done the same thing successfully before.

We can thus conclude that all firms have similar needs to fill in terms of marketing, operations and development, but due to different types of industries the methods are, and probably should be different.

SWOT-analysis

Without repeating too much on what already was stated in the analysis conducted on geographical proximity as a phenomenon, the strengths and opportunities clearly outnumber the weaknesses and threats. On its own it does not mean that they would provide a stronger case, but in this case they either give nothing that would really be considered unusual or specific (collapse of an ecosystem may occur on an online platform too) or something that would not be balanced by the positive possibilities (spreading the wellbeing or lack of business). Of course, adding to that, nowadays many firms that rely primarily on physical interaction with customers have the alternative to do business online too.

Due to these facts it can be concluded that on its own geographical proximity should be considered as a possibility rather than a burden that should be avoided. All companies studied in this thesis have benefitted from geographical proximity, each on their own way.

Discussion

As the main focus of this research the thesis and literature review is geographical proximity in business ecosystems and how it affects the dynamics and activity in them. On the other hand it reduces barriers between parties in communicating and interacting with each other, on the other hand not being reliant on space and geography would expand the markets and thus the possible network for the whole ecosystem.

This section will look deeper into the advantages and disadvantages that geographical proximity as a dimension to focus, referring to literature and conducted analysis.

For geographical proximity

Despite all tools in communicating in almost any industry, many firms still tend to cluster in one area, especially on the creative fields (Lehtonen et al, 2019). Silicon Valley is a prime example on technology firms locating in one geographic area, which continues to grow and creates a hub full of activity. Amazon used this kind of agglomeration in choosing the location of its headquarters in Seattle as well, as seen in the analysis.

O'Callaghan (n.d.) argues that geographical proximity does not necessarily help in networking, but it is invaluable when building common ground and understanding in the ecosystem. The main reason is the flow of tacit knowledge (Scaringella & Radziwon, 2018; Huhtamäki et al, 2017), which is much smoother than what the same process would be for transfer of codified information and messages (Winger,2005). This helps to avoid misunderstandings and even gives room for body language to help in the interaction. Adding to that the speed of such exchange is faster than with digital means. This leads to less time being spent for clarifying matters and more dynamic action towards the common goal. Furthermore, Winger claims that since humans are emotional beings, emotions should, and many times have been, be taken into to equation. Talking to someone face-to-face gives both a better grasp on how the other side feels about the matter thus lowering the chance of misunderstandings.

Adding to that, geographical proximity is very important to consider for firms specialised in physical products and such field, such as manufacturing. Having discussed and analysed car manufacturer Toyota and the JIT-method they use in production, the location of their manufacturing sites must have been carefully decided (Mair et al. 1988). The logistics for the needed parts and then the complete products are an essential part in the process of

getting the products to markets and a big part of the ecosystem that revolves around the product.

The local culture would also impact on how different messages, codified or oral, are perceived and what the accepted norms are (Rong et al., 2018). Connected to tacit knowledge, geographical proximity helps in understanding each other and the flow of tacit knowledge better than codified messages. This has been proven as a very important matter in making a trust-related business work. Without knowing the culture, the seller cannot know what the customer wants in terms of products and services. In western societies the online retailing used reviews made by other customers of the sold products in order to establish credibility and trust. This was also tried in the Chinese markets, but it failed. Then, Alibaba, a Chinese online retailing company re-invented an idea: they started to develop and use chat service to communicate with customers, as seen in the analysis. Due to quanxi, a habit in Chinese culture meaning that business is done between people instead with brands, thus enhancing personal connections in the business world, the chat resulted in being more effective in building trust between the seller and the buyer. This lead to conclusion that the connection could be surrogated with a digital tool, and will be discussed in the next chapter. This idea was not invented by the firms that were used to customers from the western culture. Instead Alibaba, being aware of the local norms and expectations was able build a market and create a new territorial business ecosystem.

Many studies have also discussed knowledge spill-overs (Lehtonen et al, 2019; Winger,2005). It can happen by learning from others, their mistakes and actions. This creates knowledge and even expertise on the sector and may spread to wider area. Due to active interaction the respective business ecosystem is more likely to see the effect and is thus more likely to take advantage of this spill-over. Another example provided by Lehtonen et al. 2019 happened in Helsinki: “ after Nokia’s downfall in the 2010s, former employees went on to utilise their knowledge and expertise to establish new companies, thus participating in developing the ecosystem.”
This is the case also when utilizing the already existing resources and potential, like in the case of Amazon as discussed before. They chose their headquarters location on the basis of the potential human resources they then had access to (Leschly at al. 2003).

Continuing from previous, the local territory and its history and norms do affect the current ecosystem, matter whether the scale is smaller or larger (Lehtonen et al., 2019; Rong et al., 2018). The local history could give an insight on what has happened, what are the tacit

values of the territorial business ecosystem, what expertise do people involved have and how are they connected to each other and other BE's (O'Callaghan, n.d.). Arguably, they all are relevant when a firm wants to build a strategy for their respective business ecosystem, especially, if the firm aims to be part of only one business ecosystem instead of several (Tukiainen et al., 2019). Without the personal connections, it could be difficult to establish a solid foothold in the system, like mentioned by an interviewee in the study: "He emphasizes that all partnerships come down to co-operation between people. It requires that you know people: if you want to be a Microsoft partner, you need to know people in Finland and globally." The study also adds that in case a firm wants to create a new business ecosystem, it requires connections not only to specific actors, but rather firms that might become useful, but without certainty: "With this [creating new ecosystems] strategy, the networking requires a lot of multiple, loose connections, it is complex, and new value networks emerge" (Tukiainen et al. 2019). This would be difficult without meeting them face-to-face in one way or another.

Against physical proximity

While the previous chapter stated many advantages that pursuing geographical proximity would potentially give, many studies argue that it is not necessary and therefore the work would be waste of resources. The digital mediums have made it easier for actors to communicate and interact with each other with less complications than before, potentially rendering physical proximity unnecessary. "They have done this by creating "platforms"- services, tools, or technologies - that other members of the ecosystem can use to enhance their own performance" (Iansiti & Levien, 2004).

Referring to previous chapter, Alibaba using chat service in its online retailing's customer service to build trust between the customer and the firm (Rong et al., 2018). The part in which western firms had difficulties overcoming dealt with quanxi, the social dynamics of building trust between people. Rather than trusting the seller's brand, the Chinese customer wanted to be able to trust the seller himself/herself. The use of chat service allowed the Chinese customer to "talk" with the employee on the other side conversing and discussing about the product. In other words, they created a surrogacy service for traditional requirements of following the unofficial quanxi.

The digital platforms also provide an invaluable tool in expanding the network of an actor or the entire ecosystem. This is what happened with online retailing company Amazon and Alibaba. By being the keystone player in its business ecosystem, Amazon was able to have

control over the digital platform the BE uses. This lead to Amazon opening the platform for every firm willing to submit to certain conditions and thus helping Amazon (Isckia & Lescop, 2009). By controlling an open digital platform has opened the ecosystem up for new arrivals yet kept it under Amazons control. Using an online platform Amazon has not needed physical proximity to develop its business ecosystem.

Many firms and even whole business ecosystems rely on their digital platforms nowadays. As mentioned, they provide a wide environment for new actors to join the ecosystem and thus offering more opportunities for coopetition and helping to develop the ecosystem. Furthermore, they are capable of surrogating physical proximity on terms of connections and interaction and instead of producing barriers to entry, they are keeping the system more open as mentioned in World Economic Forum 2019: “Where product firms, like diamond mines, protect their profits with barriers to entry, platform firms make profits by lubricating the entry of drivers on Lyft and merchant shops on Alibaba.”

Conclusion

There certainly are arguments for both sides. The strongest arguments against each other are arguably the following: 1) geographical proximity grants immediate and thorough access to the local business ecosystem(s) and due to the flow of tacit knowledge it can be adapted to more easily, thus giving geographical proximity an edge. This can be counter-argued by surrogacy and the developing ICT-technology: they develop that the spatiality of the business becomes irrelevant. 2) Digital online platforms have changed the hierarchy and methods business is done. Instead of focusing on selling a product, they concentrate on lubricating the process and spreading the possibilities around, thus becoming keystone-players in their own ecosystems.

Geographic proximity clearly is advised when a firm is about to make new connections without much activity before. The interaction gives more information and understanding for both sides due to tacit knowledge flow between the actors. Adding to that, geographic proximity is absolutely necessary when trying to understand local territorial values, norms, resources and markets. Without understanding the dynamics, one could miss resources being unaware they existed.

On the other hand, digital platforms have developed so quickly that many times geography does not matter. The platforms give the ecosystem an open market and easier connections, if it has been redeemed desirable as an ecosystem. It has also been proven that many

interactions that relied on direct communication between actors can be surrogated through technological means. This doesn't exclude the benefits that geographical proximity offers, however.

Answering the research questions

To answer the original research questions:

1. What kind of ecosystems tend to cluster and what tend to lean towards longer distance?

The ones that tend to benefit most from geographic proximity are the ones focused on creative industries and innovation, e.g. gaming industry, as well as firm relying on physical products, logistics and manufacturing, e.g. car industry. The reasons for this are not found yet, thus the area requires more research on the topic. However, it most likely has something to do with the more open flow of technology and expertise in the hub, keeping the ecosystem dynamic, making the delivery of the products and resources required for the manufacturing easier, and increasing coopetition inside and outside.
Ecosystems that tend to lean towards longer distance in their operating are digital platforms and such service providers. Due to the nature of their supplied service, geographic proximity with other actors in the ecosystem is not a priority. Instead, the service can be developed detached from the geographical locations if chosen so.

2. Are there ecosystems that are successful, but are not glued together by industry or geographical proximity?

Again, digital platform providers have been successful due to rise in the field. Nowadays the reliance on technology is on such level that it has opened a lot of room for new solutions and therefore business. Examples like Alibaba and Amazon are dependant of the geographic location due to logistical dimension of the retailing. However, similar service and platform providers, whose products do not need physical transport are not glued together by geography, even if it could make the ecosystem more dynamic. As an ironic example we mention mobile app sector and the online stores for the trade.

3. What are the potential benefits gained from geographic proximity in a business ecosystem?

The discussed benefits come from understanding the territorial and local dynamics in terms of interacting and values. Establishing common ground within a business ecosystem helps all inside it. Coopetition will run smoother and connections and resources are found and accessed. Possible spill-over effects attract more participants and due to closer proximity their start as productive members of the ecosystem is easier and faster. In case of a manufacturer, the logistics for resources and delivery are easier to plan and to execute.

The main question of this study:

Should firms strive for geographic proximity in their respective business ecosystem?

The answer based on the literature and analysis is: if it is possible in the firms or ecosystems current situation. Geographic proximity has not been proven to be an unnecessary factor in any industry or ecosystem, no matter whether the provided service or product is more traditional or modern. On the contrary, it helps to build tighter connections and access local resources that might not be found otherwise. It also introduces the values and ideas to be followed, if one would want to do business in the area or ecosystem. It enables relief in logistics for physical products as well as firms and industries that rely on them. These are advantages even for firms and ecosystems that rely on online activity instead of physical.

However, if the ecosystem is less dependable on geographic location and proximity, it might be able to surrogate the effects geographic proximity would have through other means, like online platforms. This could mean that even though the proximity would help, it would not be worth the striving to be valuable as an investment as the social proximity is enough. This depends heavily on the firm, the chose strategy and industry. On the other hand, if the ecosystem is located in an agglomeration with other actors, opening up the ecosystem at least partly in a digital environment or platform would not be a loss for the ecosystem, on the contrary. Digital connections for any firm would most likely help in the local territory and possibly global market, thus combining both aspects. All in all, geographic proximity is a characteristics that should be pursued, but not above anything else.

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